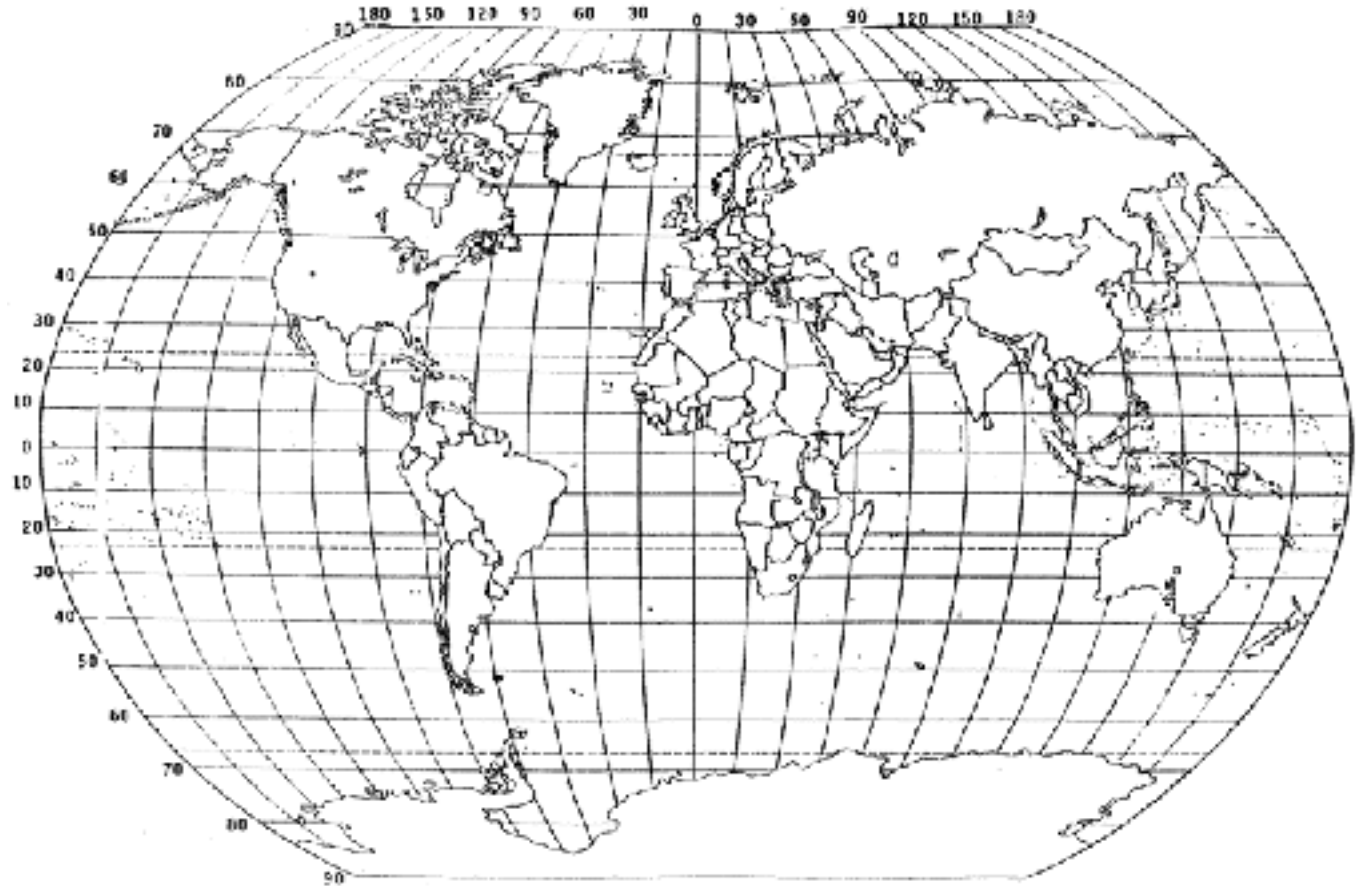


Model's of Earth Performance Task

Name: _____ Date: _____ Score: _____

Part 1: Can you locate these famous volcanoes on this world map using their latitude and longitude co-ordinates?

- A: Krakatoa 6S 104E
- B: Mount Fuji 35N 138E
- C: Mount Vesuvius 40N 14E
- D: Mount St Helens 46N 122W
- E: Mount Tambora 8S 117E
- F: Mauna Loa 19N 155W
- G: Eyjafjallajökull 63N 19W
- H: Mount Pelée 14N 61W
- I: Thira 36N 25E
- J: Nevado del Ruiz 4N 75W
- K: Pinatubo 15N 120E
- L: Stromboli 38N 12E
- M: Aconcagua 32S 70W
- N: Parícutin 19N 102W
- O: Cotopaxi 0S 78W
- P: Hekla 63N 19W
- Q: Mount Etna 37N 14E
- R: Kawah Ijen 8S 115E



Part 2: A ratio compares two numbers by division. For example, the scale of a map given as a ratio 1 : 250,000. At this scale, the distance between two points on the map measures 23.5 cm. How would you find the actual distance?

1) Write the scale as a fraction.

$$1/250,000$$

2) Write a proportion. Let d represent the distance between two points.

$$1/250,000 = 23.5\text{cm}/d$$

3) Write the cross products.

$$1 \times d = 250,000 \times 23.5\text{cm}$$

$$d = 5,875,000\text{cm}$$

(Hint: To convert cm to km, divide d by 100,000)

Practice problem #1

A map's scale is 1 : 25,000. If two points on the map are 4.7cm apart, how far apart are they on the ground?

Practice problem #2

A globe has a scale of 1 : 40,000,000. Using a piece of string, you determine that the shortest distance between two cities on the map is 7 cm. What is the actual distance between the two cities?